

# WNV VETERINARIAN'S ALERT

## GOVERNMENT OF THE DISTRICT OF COLUMBIA Department of Health

Bureau of Community Hygiene  
Animal Disease Prevention Division



April 15, 2005

TO: District of Columbia Practicing Veterinarians

SUBJECT: West Nile Virus (WNV) Update

In anticipation of the upcoming West Nile Virus (WNV) season in our area, we are updating the following information to assist you in identifying, testing and reporting West Nile virus cases.

**Surveillance and control plans:** The District of Columbia Department of Health has developed an Arbovirus Surveillance and Response Plan for the year 2004. This plan outlines WNV surveillance for humans, birds and mammals, and mosquitoes. The plan also provides a prevention, control, and response program for WNV for the District of Columbia. The plan as well as prevention and control measures, periodic health alerts and weekly surveillance reports are available on the Department of Health website at [www.dchealth.dc.gov](http://www.dchealth.dc.gov). Clients should be advised to apply the same general guidelines proposed for people to their pets to reduce the chance of their pet's exposure to West Nile virus.

**Reporting and testing of ill animals:** In animals ill with encephalitis that you may encounter in your practice, rabies is still a more likely diagnosis than WNV, and is a more critical diagnosis in regards to rapid provision of preventive treatment to persons exposed. If rabies is suspected and exposures have occurred, such as a bite or other human contact with the animal's saliva, the animal must be euthanized and submitted for rabies testing. That submission should be coordinated with the Department of Health. For horses from a WNV affected area that test negative for rabies, the Laboratory will subsequently test the brain specimens for WNV. Routine WNV testing of the brains of additional rabies-negative animals may be arranged depending on resources and priorities.

Clinical disease and transmission caused by WNV infection in dogs and cats was documented in 2002. Clinical case criteria that have been helpful in narrowing down human encephalitis cases for WNV testing include fever, altered mental status, muscle weakness by neurologic exam or EMG, and abnormal CSF with increased protein, pleiocytosis, and lymphocytosis. Animals ill with encephalitis that do not require

euthanasia and rabies testing and are from WNV affected areas may be tested for WNV. The District of Columbia Public Health Laboratory will conduct serologic and virus isolation testing for WNV. Because rabies is a more likely diagnosis in small companion animals, and pets are unlikely to become clinically ill with WNV, please consult with Department of Health Animal Disease Control Division if you have questions regarding sample submission criteria.

For encephalitis cases in domestic animals/livestock, Department of Health, Animal Disease Prevention Division must be consulted before submitting samples. Samples collected for antibody detection should be collected in red top (clot) tubes and should be paired samples. Virus isolation has, to date, been successful with brain, spinal cord, and kidney.

**Prevention:** Efforts should be directed to minimize exposure to mosquitoes. The single most important control effort should be to eliminate or minimize mosquito breeding habitat near dwellings or stable areas. Clients should be directed to police their areas for cans, tires, clogged gutters or other items which hold standing water that can be used as breeding sites for mosquitoes. This includes swimming pools that are not opened and not maintained in good condition. Water troughs and water dishes should be kept in good condition, water changed every three days, and maintained such that they do not become breeding sites for mosquitoes. By minimizing breeding sites of the WNV carrier mosquito, the number of adult mosquitoes and potentially virus positive mosquitoes that interact with mammalian hosts can be decreased.

In addition to decreasing the number of breeding sites for the vector, keeping animals in during dawn and dusk when *Culex spp.* is most active may decrease exposure to this mosquito species that prefers to feed in twilight. Insect spray may be effective for short periods of time, but will not have a lasting effect.

### **Summary:**

The risk of acquiring WNV infection from horses or other mammals as a clinician examining these animals is un documented. WNV is vector-borne, however it is prudent to practice universal precautions when handling animals with neurologic signs, especially since rabies, a differential rule-out, can be transmitted directly from an infected animal.

For further questions and submission criteria, please call the District of Columbia Department of Health, Animal Disease Prevention Division, 202-535-2323.